CLAIMS

1. A device for emptying hot particle material from a chamber (4) into a transport container (2), the container (2) being provided with a first pipe (3, 31) that can be inserted into the particle material in the chamber, and a second pipe (6) that is connected to a vacuum source (5) via a powder separator (7), wherein the first and second pipes communicate with the upper part of the container (2) and are spaced from each other to permit separation of particle material in the container, wherein the container (2) has an outlet (11) in its lower, downwardly narrowing part (17), said outlet (11) being provided with a valve (10), wherein a vertical chute (20) surrounds the outlet, extends downwardly therefrom, and has an evacuation pipe (70) for the withdrawal of a mixture of air and powder that is generated inside the shaft (20) while the particle material is being emptied through the outlet and outlet valve, and wherein the container (2) includes a heat-exchanger (40) to cool the particle material deposited in the container (2), **characterised in** that at least one compressed air tube (60) extends into the interior of the container (2) and is provided with a plurality of openings (64) from which air flows, said openings being open to the powder material therein, and in that the compressed air tube (60) is provided with an inlet end (67) that is supplied from a compressed air source and has a cut-off valve (61) controlled by software (63) for time-controlled forcing of compressed air into the powder material through the openings (64).

2. A device as claimed in claim 1, **characterised in** that the outlet end 28 of a suction tube (22, 22') communicates with the interior of the upper part (21) of the container (2) and that its inlet end is supplied with ambient air, the suction tube (22, 22') having a section which extends

through the lower part of the container (2) and which contains an ejector (29) through which powder material is carried by the air-flow through the tube (22, 21').

3. A device as claimed in claim 1 or claim 2, **characterised in** that a suction tube (22', 70) communicates with the vertical chute (20) and opens into the upper part of the container (2), the suction tube preferably having a section which extends through the lower part (17) of the container and is provided with an ejector (29).

4. A device as claimed in any one of claims 1-3, **characterised in** that an air induction tube (80) is connected to the lower part of the container (2) in the vicinity of its outlet (11) and has a valve (81).

5. A device as claimed in any one of claims 1-4, **characterised in** that vertical chute (20) is in the form of a vertical chute bellows that serves to surround a jet of powder material flowing out through the outlet to a receiving chamber (4').

6. A device as claimed in any one of the preceding claims, **characterised in** that the pipe (3) for drawing powder material into the container (2) is provided with a shut-off valve (32).

7. A device as claimed in claim 6, **characterised in** that, when particle material is being emptied from the container (2), the valve (32) in the pipe (3) for drawing powder material into the container (2) is arranged to be closed, while the negative pressure source remains activated, and in that the valve (81) in the tube connected to the outlet part

of the container (2) is arranged to be opened to permit the particle material deposited in the container (2) to flow out through the outlet (11) when the outlet valve (10) is opened.

8. A device as claimed in any one claims 1-7, **characterised in** that the heat-exchanger (40) comprises a plurality of hollow heat-exchanger elements (41) through which cooling air flows, and in that at least one tube (90) is arranged to extend between a plurality of heat-exchanger bodies (41) to establish air communication between them, wherein the tube (91) between the heat-exchanger bodies (41) have openings through which air from the interior of the heat-exchanger bodies (41) can flow out into the interior of the container (2).

9. A device as claimed claim 8, **characterised in** that the tube (90) communicating between the heat-exchanger bodies (41) has an end (91) that communicates with the atmosphere outside the container (2).